

2008 LMOP PROJECT EXPO WINDSOR-BLOOMFIELD LANDFILL



WINDSOR, CONNECTICUT

LANDFILL OVERVIEW

Open Year: 1973

Estimated Closure Year: 2010

*Waste in Place: 1.8 million tons

*Design Capacity: 2 million tons

*Annual Acceptance: 70,946 tons (2006)

Landfill Area: 50 acres

Number of Wells Installed: 43 (vertical); 7 (horizontal)

Flare in Place: Yes

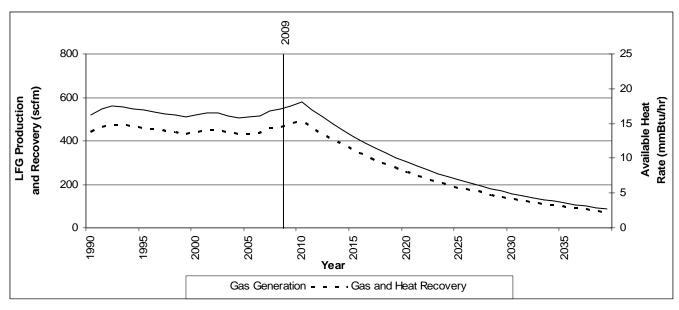
Methane Content of Gas: 41.6%

ENVIRONMENTAL BENEFITS

Windsor-Bloomfield Landfill reports that it is not currently required to collect and combust landfill gas under the Landfill NSPS/EG. Collection and control of the landfill gas at its estimated extraction rate of 476 scfm in 2009 would result in direct emission reductions of 47,000 metric tons of $\rm CO_2e$ and utilizing the gas to generate electricity would result in the avoidance of 6,900 metric tons of $\rm CO_2e$ emissions due to displaced electricity generation from conventional fossil fuel sources. These emission reductions are equivalent to any one of the following annual environmental benefits for 2009:

- Annual greenhouse gas emissions from 9,800 passenger vehicles
- Carbon sequestered annually by 12,200 acres of pine or fir forests
- CO₂ emissions from burning 280 railcars' worth of coal
- CO₂ emissions from 124,000 barrels of oil consumed
 - * Total waste tonnages are included for all years where MSW comprised at least 75% of the waste disposed. For years 2002 through 2008, LMOP used solely MSW tonnages to model LFG generation.

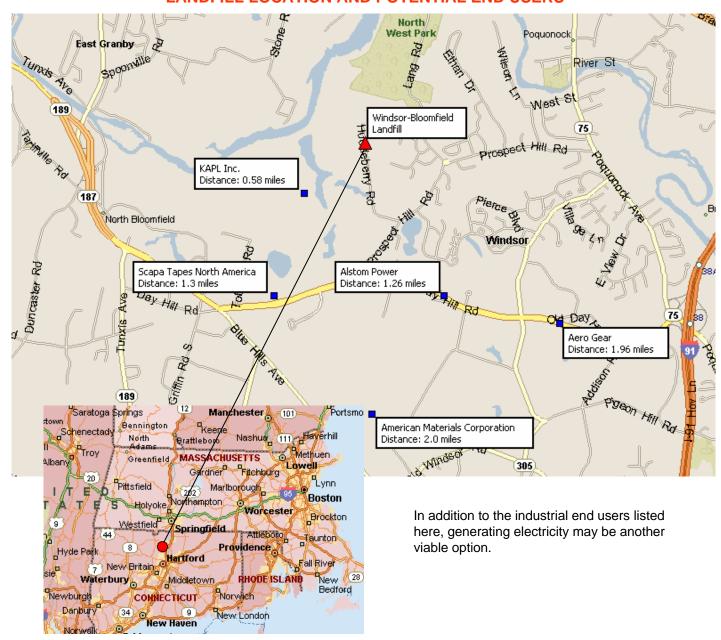
LANDFILL GAS AND ENERGY POTENTIAL



Actual 2007 LFG Recovery:
461 scfm (at 41.6% CH₄)
383 scfm (corrected to 50% CH₄)

LandGEM Peak Recovery Estimation: 493 scfm (in 2010)

LANDFILL LOCATION AND POTENTIAL END USERS



ADDITIONAL INFORMATION

Several incentives for renewable energy exist in Connecticut.

- CT Clean Energy Fund makes early stage capital investments in projects that build consumer demand or produce clean power.
- CT RPS program: Prices for CT renewable energy credits (RECs) have ranged from 5 to 42 \$/MWh during years 2004 – 2006.
- Other State RPS programs: RECs generated in CT can be sold in other states' RPS programs, including MA and NJ.
- RI energy standard allows for purchase of renewables from other states that are part of the NEPOOL-GIS.

The landfill has had an engineer conduct a pre-feasibility study and gas sampling to evaluate LFG energy project potential.

FOR MORE INFORMATION

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